

Safety Data Sheet

according to Regulation (EC) No 1907/2006

Hardener HT 2-W (white colour)

Print date: 15.03.2013

Product code: 100109-2012-GHS

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1. Identification of the substance/mixture and of the company/undertaking

Identification of the substance or mixture

Hardener HT 2-W (white colour)

Company/undertaking identification

Company name:	R&G Faserverbundwerkstoffe GmbH	
	Composite Technology	
Street:	Im Meißel 7 - 13	
Place:	D-71111 Waldenbuch	
Post-office box:	1145	
	D-71107 Waldenbuch	
Telephone:	+49-7157-530460	Telefax: +49-7157-530470
e-mail:	info@r-g.de	
Internet:	www.r-g.de	
Responsible Department:	Management	
1.4. Emergency telephone number:	poison information centre	

2. Hazards identification

Classification

Indications of danger: C - Corrosive, Xn - Harmful, N - Dangerous for the environment

R phrases:

Harmful by inhalation, in contact with skin and if swallowed.

Causes burns.

May cause sensitisation by skin contact.

Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

GHS: Hazard categories:

Acute toxicity: Acute Tox. 4

Skin corrosion/irritation: Skin Corr. 1B

Serious eye damage/eye irritation: Eye Dam. 1

Respiratory/skin sensitization: Skin Sens. 1

Hazardous to the aquatic environment: Aquatic Chronic 3

Hazard Statements:

Harmful if swallowed.

Causes severe skin burns and eye damage.

May cause an allergic skin reaction.

Harmful to aquatic life with long lasting effects.

3. Composition/information on ingredients

Chemical characterization (Mixture)

modified epoxy resin hardener

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Hazardous components

EC No	CAS No	Chemical name	Quantity
		Classification GHS classification	
202-859-9	100-51-6	benzyl alcohol	25 - 50 %
		Xn - Harmful R20/22	
		Acute Tox. 4, Acute Tox. 4; H332 H302	
220-666-8	2855-13-2	3-aminomethyl-3,5,5-trimethylcyclohexylamine	25 - 50 %
		C - Corrosive, Xn - Harmful R21/22-34-43-52-53	
		Acute Tox. 4, Acute Tox. 4, Skin Corr. 1B, Skin Sens. 1, Aquatic Chronic 3; H312 H302 H314 H317 H412	
	1477-55-0	m-Xylilendiamin	< 20 %
		C - Corrosive, Xn - Harmful R20/22-34-43-52-53	
246-672-0	25154-52-3	nonylphenol	< 5 %
		Repr. Cat. 3, C - Corrosive, Xn - Harmful, N - Dangerous for the environment	
		R62-63-22-34-50-53	
		Repr. 2, Acute Tox. 4, Skin Corr. 1B, Aquatic Acute 1, Aquatic Chronic 1; H361fd H302 H314 H400 H410	

Full text of R and H phrases: see Section 16.

4. First aid measures

General information

Take the injured person out of the danger area and lay him/her down. Immediately take off soiled, impregnated clothing.

After inhalation

Provide fresh air. In case of difficulties of breathing administer oxygen. Consult physician. Position and transport victim on their side. In case of respiratory distress, bring into semi-upright, seated position.

After contact with skin

After contact with skin, wash immediately with soap and plenty of water. Cover wound with sterile dressing.

After contact with eyes

Immediately flush eyes with plenty of flowing water for 10 to 15 minutes holding eyelids apart. Consult an ophthalmologist.

After ingestion

Rinse mouth immediately and drink large quantities of water. Immediately get medical attention.

5. Fire-fighting measures

Suitable extinguishing media

Carbon dioxide (CO₂). Extinguishing powder. Water fog. Fight major fires with a water spray jet or alcohol-resistant foam.

Extinguishing media which must not be used for safety reasons

High power water jet.

Special exposure hazards arising from substance or mixture itself, combustion products, resulting gases

Nitrogen oxides (NO_x). Carbon monoxide. Ammonia.

Special protective equipment for fire-fighters

@0504.B050011 Wear a protective full body suit. Wear breathing apparatus with own air supply.

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Additional information

Contaminated fire-fighting water must be collected separately. Do not empty into drains or the aquatic environment. Fire residue and contaminated firefighting water must be disposed of in accordance with government regulations.

6. Accidental release measures

Personal precautions

Wear personal protection equipment. Keep unprotected persons at a safe distance.

6.2. Environmental precautions

Do not empty into drains or the aquatic environment. Do not allow to enter the soil or subsoil.

Methods for cleaning up/taking up

Absorb with liquid-binding material (e.g. sand, diatomaceous earth, acid- or universal binding agents). Treat the assimilated material according to the section on waste disposal. Provide adequate ventilation. Dispose of contaminated material as § 13 waste.

7. Handling and storage

Handling

Advice on safe handling

In case of open exposure equipment with built-in suction must be used.

Storage

Requirements for storage rooms and vessels

Keep container tightly closed. Ventilate adequately storage and work rooms. Employ reliable measures to prevent the product from entering the soil.

Storageclass (D): 8

8. Exposure controls/personal protection

Exposure limit values

8.2. Exposure controls

Occupational exposure controls

In case of open exposure equipment with built-in suction must be used. Do not breathe gas/fumes/vapour/spray.

Protective and hygiene measures

Take off immediately all contaminated clothing. Protect skin by using skin protective cream. After work, wash hands and face. When using do not eat or drink.

Respiratory protection

Bei guter raumbelüftung nicht erforderlich.

Hand protection

Handschuhe aus Kunststoff (EN 374)
Handschuhmaterial: Butylkautschuk, Nitrilkautschuk

Eye protection

Dichtschiessende Schutzbrille (EN 166)

Skin protection

Arbeitsschutzkleidung (EN340)

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9. Physical and chemical properties

General information

Physical state: liquid
Colour: white
Odour: amine-like

Important health, safety and environmental information

	Test method
pH-Value (at 20 °C):	11
Changes in the physical state	
Boiling point:	200 °C DIN 53171
Flash point:	> 100 °C DIN EN ISO 2719
Lower explosion limits:	1,3 vol. %
Upper explosion limits:	13 vol. %
Vapour pressure: (at 20 °C)	0,28 hPa
Density (at 20 °C):	1,04 g/cm ³
Water solubility:	sparingly soluble.
Viscosity / dynamic: (at 25 °C)	800 - 1000 mPa·s

10. Stability and reactivity

10.6. Hazardous decomposition products

toxic and caustic gases and vapours Ammonia.

Further information

strong exothermal reaction with: acid.

11. Toxicological information

Irritation and corrosivity

Caustic effect on eyes, skin, and mucous membranes.

Sensitising effects

May cause sensitization by skin contact.

Additional information on tests

Acute toxicity, irritation of the skin and mucous membrane, and mutagenic potential of the preparation assessed by the manufacturer on the basis of the data sheets available on the main components.

Information gaps exist on some of the main individual components. However, according to the experience of the manufacturer, no dangers above and beyond those on the product label are to be expected.

12. Ecological information

Further information

Do not empty into drains or the aquatic environment. Acute toxicity, irritation of the skin and mucous membrane, and mutagenic potential of the preparation assessed by the manufacturer on the basis of the data sheets available on the main components. Information gaps exist on some of the main individual components. However, according to the experience of the manufacturer, no dangers above and beyond those on the product label are to be expected.

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13. Disposal considerations

Advice on disposal

Dispose of waste according to applicable local, state, and federal regulations.

Contaminated packaging

Dispose of waste according to applicable local, state, and federal regulations.

14. Transport information

Land transport (ADR/RID)

14.1. UN number: UN2735
ADR/RID class: 8
Classification code: C7
Warning plate
Hazard No: 80
Hazard label: 8



ADR/RID packing group: III
Limited quantity: 5 L
Tunnel restriction code: E

Description of the goods

POLYAMINES, LIQUID, CORROSIVE, N.O.S.isophoronediamine

Other applicable information (land transport)

Special provisions: 274
E1
: 3

Marine transport (IMDG)

14.1. UN number: UN2735
IMDG code: 8
Hazard label: 8



IMDG packing group: III
EmS: F-A, S-B
Limited quantity: 5 L

Description of the goods

POLYAMINES, LIQUID, CORROSIVE, N.O.S.isophoronediamine

Other applicable information (marine transport)

Special provisions: 223, 274
E1
Segregation Group 18

Air transport (ICAO)

UN/ID number: UN2735

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ICAO/IATA-DGR: 8
Hazard label: 8



ICAO packing group: III
Limited quantity Passenger: 1 L

IATA-packing instructions - Passenger: 852
IATA-max. quantity - Passenger: 5 L
IATA-packing instructions - Cargo: 856
IATA-max. quantity - Cargo: 60 L

Description of the goods

POLYAMINES, LIQUID, CORROSIVE, N.O.S.isophoronediamine

Other applicable information (air transport)

E1
: Y818
Special provisions: A3
Special provisions: A803
: Y841

15. Regulatory information

Labelling

Danger symbols: C - Corrosive; N - Dangerous for the environment



C - Corrosive



N - Dangerous for the environment

Hazardous components which must be listed on the label

benzyl alcohol
3-aminomethyl-3,5,5-trimethylcyclohexylamine
m-Xylilendiamin
nonylphenol

R phrases

20/21/22 Harmful by inhalation, in contact with skin and if swallowed.
34 Causes burns.
43 May cause sensitisation by skin contact.
51/53 Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

S phrases

26 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
45 In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).
60 This material and its container must be disposed of as hazardous waste.
61 Avoid release to the environment. Refer to special instructions / Safety data sheets.
36/37/39 Wear suitable protective clothing, gloves and eye/face protection.

Special labelling of certain mixtures

Contains epoxy constituents. See information supplied by the manufacturer.

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GHS labelling

Signal word:

Danger

Pictograms:

corrosion; exclamation mark



Hazard statements

- | | |
|------|--|
| H302 | Harmful if swallowed. |
| H314 | Causes severe skin burns and eye damage. |
| H317 | May cause an allergic skin reaction. |
| H412 | Harmful to aquatic life with long lasting effects. |

Precautionary statements

- | | |
|----------------|--|
| P101 | If medical advice is needed, have product container or label at hand. |
| P102 | Keep out of reach of children. |
| P260 | Do not breathe dust/fume/gas/mist/vapours/spray. |
| P270 | Do not eat, drink or smoke when using this product. |
| P272 | Contaminated work clothing should not be allowed out of the workplace. |
| P273 | Avoid release to the environment. |
| P280 | Wear protective gloves/protective clothing/eye protection/face protection. |
| P301+P312 | IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell. |
| P330 | Rinse mouth. |
| P331 | Do NOT induce vomiting. |
| P303+P361+P353 | IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower. |
| P333+P313 | If skin irritation or rash occurs: Get medical advice/attention. |
| P352 | Wash with plenty of soap and water. |
| P363 | Wash contaminated clothing before reuse. |
| P304+P340 | IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. |
| P310 | Immediately call a POISON CENTER or doctor/physician. |
| P305+P351+P338 | IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. |
| P310 | Immediately call a POISON CENTER or doctor/physician. |
| P405 | Store locked up. |

Special labelling of certain mixtures

Contains epoxy constituents. May produce an allergic reaction.

National regulatory information

Water contaminating class (D): 3 - highly water contaminating

16. Other information

Full text of R phrases referred to under Sections 2 and 3

- | | |
|----------|---|
| 20/21/22 | Harmful by inhalation, in contact with skin and if swallowed. |
| 20/22 | Harmful by inhalation and if swallowed. |
| 21/22 | Harmful in contact with skin and if swallowed. |
| 22 | Harmful if swallowed. |
| 34 | Causes burns. |
| 43 | May cause sensitisation by skin contact. |
| 50 | Very toxic to aquatic organisms. |

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- | | |
|-------|---|
| 51/53 | Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment. |
| 52 | Harmful to aquatic organisms. |
| 53 | May cause long-term adverse effects in the aquatic environment. |
| 62 | Possible risk of impaired fertility. |
| 63 | Possible risk of harm to the unborn child. |

Full text of H statements referred to under Sections 2 and 3

- | | |
|--------|--|
| H302 | Harmful if swallowed. |
| H312 | Harmful in contact with skin. |
| H314 | Causes severe skin burns and eye damage. |
| H317 | May cause an allergic skin reaction. |
| H332 | Harmful if inhaled. |
| H361fd | Suspected of damaging fertility. Suspected of damaging the unborn child. |
| H400 | Very toxic to aquatic life. |
| H410 | Very toxic to aquatic life with long lasting effects. |
| H412 | Harmful to aquatic life with long lasting effects. |

(The data for the hazardous ingredients were taken respectively from the last version of the sub-contractor's safety data sheet.)